

REMARKS/ARGUMENTS

Claims 1-25, 30-33 and 44-51 are pending in the application, with claims 49-51 withdrawn from further consideration.

In the Office Action of January 26, 2007, the Examiner subjected newly added claims 49-51 to a restriction requirement on the basis that the newly added claims have a different mode of operation than the "method for investigation of a fuel cell comprising a first test" comprising a), b), c) and d) as recited in the original claims. However, Applicant respectfully traverses the restriction requirement on the basis that independent claim 49 is directed to a method "comprising a first test comprising testing the operation of said fuel cell system at low current yield." The Examiner's attention is respectfully directed to independent claim 1 which also calls for a method of investigating the fuel cell system comprising a first test comprising "d) to test an operation of said fuel cell system at low current yield." Applicant maintains that independent claim 49 and independent claim 1 have common subject matter and contrary to the Examiner's position independent claim 49 does not involve a different mode of operation than independent claim 1. Withdrawal of the restriction requirement is respectfully requested.

Claims 1-3, 10, 13-14 and 46-48 have been rejected under 35 U.S.C. 102(e) as being anticipated by Condit et al (U.S. Patent No. 6,635,370). However, the support for the Examiner's rejection of claim 1 completely ignores the limitations "and wherein said tests are conducted outside of a test chamber." Condit et al does not disclose the ignored limitation. At page 5 of the Office Action of January 26, 2007, the Examiner states:

- Condit et al, do not specifically point out that the tests are conducted outside of a test chamber, however, it is the Examiner's position that a reference that is silent about a claimed invention's features is inherently anticipated if the missing feature is necessarily present in that which is described in the reference.

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Inherency is not established by probabilities or possibilities. In re Robertson, 49 USPQ 2d 1949 (1999).

The Examiner admits that the limitation "and wherein said tests are conducted outside of a test chamber" is not disclosed by Condit et al. The Examiner's position regarding inherency is drastically misplaced. The fact that a certain result or characteristic may result or be present in the prior art is not sufficient to establish inherency. In re Rickaert, 28 USPQ 2d 1955, 1957 (Fed. Cir. 1993). In the instant case, the issue is not whether a claimed structural (or act of a process) element disclosed in the prior art has an inherent property or characteristic as further set forth in the claim. The issue is whether the reference discloses at all, the claimed element, i.e., that the "tests are conducted outside of a test chamber." The prior art has to first disclose the claimed structural element or act ("step") of a process before the issue of inherency needs to be addressed. The burden on the Examiner to establish anticipation by inherency is set forth as follows:

In relying upon the theory of inherency, the Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teaching of the applied prior art. Ex parte Levy, 17 USPQ 2d, 1461, 1464 (BOPAI 1999).

Applicant maintains that by following Condit et al, one would not necessarily be led to conduct a test outside of a test chamber. Therefore, no *prima facie* case of anticipation by inherency has been established. Withdrawal of the rejection is respectfully requested.

With respect to claim 3, again, Applicant directs the Examiner's attention to Condit et al which teaches that it is preferred that the hydrogen concentration of less than 4% be used "since more than 4% hydrogen in air is considered in excess of the flammability limit." Thus, Condit et al does not teach a mixture comprising substantially 95% nitrogen and 5% hydrogen as recited in claim 3.

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With respect to the rejection of claims 13-14, the Examiner's basis in support of the rejection completely ignores the claim limitation that "a measurement is made of a quantity of said mixture emerging from at least some of the lines, a sum is formed of the emerging quantities and is compared with fed-in quantities to determine leakage." Although the Examiner cites column 8, lines 26-24 as disclosing such limitation, Condit et al simply does not disclose the limitation and the Examiner is respectfully requested to quote verbatim portions of Condit et al that disclose the same or withdraw the rejection. No prima facie case of anticipation has been established with respect to claims 13-14.

With respect to the rejection of independent claim 47 and claim 48 that depends therefrom, the Examiner supported his position again noting that Condit et al does not specifically point out that tests are conducted outside of a test chamber but maintains that the claimed invention's feature is inherently anticipated. Applicant's remarks above regarding an anticipation are repeated and applied to independent claim 47. Following Condit et al would not necessarily result in the tests being conducted outside of a test chamber. No prima facie case of anticipation has been established with respect to claims 47-48.

Claims 1, 7-8, 10, 22-25 and 44-46 were rejected under 35 U.S.C. 102(e) as being anticipated by Bailey et al (U.S. Patent No. 6,638,650). However, again, the rejection completely ignores the limitation "and wherein said tests are conducted outside of a test chamber." The Examiner fails to point to any specific section of Bailey et al in support of the reference disclosing the cited limitation. No prima facie case of obviousness has been established.

With respect to the rejection of claims 7-8, although Bailey discloses that it is typical to check for leaks prior to operating the fuel cell, Bailey doesn't disclose a method

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in which such leaks may be checked for involving tests that are conducted outside of a test chamber as recited in independent claims 1 and 47.

With respect to the rejection of claims 44-46, Bailey et al fails to disclose "supplying said mixture from a mixture tank" as recited in claim 44. Contrary to the Examiner's position, Bailey, at column 17, lines 18-25, does not disclose the recited limitation. A single source of fuel mixture, including 5% hydrogen and 95% nitrogen is available for use in testing, thus making Applicant's invention convenient for use in testing of fuel cells during manufacturing or repair and the like. Bailey fails to suggest using a mixture from such a source. No *prima facie* case of anticipation has been established with respect to claim 44.

Claims 4-5 and 11-12 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Bailey et al (U.S. Patent No. 6,638,650) as applied to claims 1, 8, 10, 22-25 and 44-66 and further in view of Knights et al (U.S. Patent No. 6,492,043).

The Examiner at page 7, paragraph 7, admits that Bailey et al does not disclose the first test being carried out in an environment with normal air atmosphere or an environment with normal ventilation and therefore the limitation "and wherein the tests are conducted outside of a test chamber" in independent claims 1 and 47 would not have been identically disclosed by Bailey.

The Examiner admits that Bailey does not disclose that the first test should be carried out in an environment with a normal air atmosphere as recited in claim 4, or an environment with normal ventilation as recited in claim 5. The Examiner then refers to Knights et al and relies on column 8, lines 24-26 which state:

To detect external leaks between a fuel cell fluid passage and the external environment, the monitored environment may be the surrounding environment outside the fuel cell.

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The Examiner then concludes that it would have been obvious to a person of ordinary skill in the art to test the Bailey reference in an environment suggested by Knights et al because Knights teaches that the environment outside the fuel cell would be a normal air atmosphere and have proper ventilation. However, the above reference section of Knights clearly does not teach anything about the outside environment of the fuel cell. The outside of the environment of the fuel cell might be and can be inferred to be a testing chamber. Knights et al does not suggest testing a fuel cell outside of a testing chamber. Nor does Knights et al suggest the use of a fuel mixture including an amount of fuel which is less than a value at which said mixture is flammable in air as recited in independent claims 1 and 47. Thus, no prima facie case of obviousness has been established with respect to claims 4-5.

With respect to the rejection of claims 11 and 12, the Examiner admits that the references are silent as to the requirement of filling a fuel cell at a predetermined pressure and thereafter measuring the pressure over time and comparing it to the predetermined pressure to determine if the test pressure has reduced impermissibly as a function of time. Thus, claim 11 is directed to a method of investigating a fuel cell comprising a first test to test whether the fuel cell is gas tight including filling the fuel cell at a predetermined pressure and measuring pressure as a function of time. The limitations of claim 11 have been ignored. Because the rejection ignores claim limitations, no prima facie case of obviousness has been established with respect to claims 11 and 12.

Claims 6-7, 9, 18-21, 30-32 and 46 were rejected under 35 U.S.C. 103(a) as being unpatentable over Condit et al, as applied to claims 1-3, 10, 13-14 and 46-48 as set forth above, or over Bailey et al as applied to claims 1, 8, 10, 22-25 and 44-46 as set forth

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above. However, the Examiner admits that the references do not disclose at least one of the tests being carried out during the manufacturing of a vehicle incorporating said fuel cell as a source of propulsion in order to test operability of said vehicle at time of manufacture, wherein the first test is carried out in a workshop after repair of a vehicle containing said fuel system or wherein at least one of the tests is carried out on a test bench during development of said fuel cell system and the test being carried out without a test chamber. The Examiner then concludes that it would have been obvious to a person of ordinary skill in the art to perform these method steps in any order since it can be held that the selection in which the process steps are carried out has little patentable weight when not distinctly claimed. However, Applicant respectfully points out that Applicant is not claiming any particular order but a test that may be selected from four (a-d) possibilities that the Examiner has recognized the references as not disclosing or suggesting. Therefore, no *prima facie* case of obviousness has been established with respect to claims 6-7, 9 and 46.

With respect to the rejection of claims 30-32, the Examiner admits that neither reference discloses that after a successfully conducted test, a second test is carried out in the same manner as the first. The Examiner concludes that it would have been obvious to conduct a second test to verify the accuracy of the first test. However, the Examiner fails to point to any reference suggesting the same. Thus, no *prima facie* case of obviousness has been established with respect to claims 30-32.

Further, with respect to claim 30, the rejection completely ignores the recitation "a portion of the fuel in said mixture is increased and a second test is carried out in the same manner as the first test". The Examiner has not pointed to any reference suggested increasing the amount of fuel in the mixture. Further, with respect to claim 31, the rejection ignores the limitation "said second test is carried out ... with a significantly

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reduced portion of inert gas in the mixture." Still further, with respect to claim 32, the rejection ignores the limitations "said second test is carried out ... with a degenerated mixture without inert gas." Since claim limitations have been completely ignored, no *prima facie* case of obviousness has been established.

Claim 15 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Condit et al, as applied to claims 1-3, 10, 13-14 and 46-48 above, and further in view of Bailey et al. However, claim 15 depends from claim 13 which requires "wherein a quantity of said mixture is fed into said fuel cell system, said quantity of said mixture is measured, said valves are switched on or off in accordance with at least one of a predetermined pattern in a predetermined sequence, a measurement is made of a quantity of said mixture emerging from at least some of said lines, a sum is formed of said emerging quantities and is compared with said fed-in quantity to determine any leakage, which appear as a difference value." Although the Examiner points to Bailey et al, column 9, lines 10-15 and 24-33 to support the rejection, Bailey et al doesn't measure the amount of gas entering and leaving the fuel cell system. No *prima facie* case of obviousness has been established.

Claims 16-17 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Condit et al, as applied to claims 1-3, 10, 13-14 and 46-48 as described above, or over Bailey et al, as applied to claims 1, 8, 10, 22-25 and 44-46 as described above, and further in view of Tomimatsu et al (U.S. Patent No. 5,595,832). Claims 16-17 each depend from independent claim 1 and are patentable on the same basis. Neither Condit, Bailey et al, or Tomimatsu et al disclose or suggest that a fuel cell system should be investigated utilizing a fuel mixture including an amount of fuel below that at which the mixture is flammable in

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air and that the test should be conducted outside of a test chamber. No prima facie case of obviousness has been established.

The Examiner's attention is respectfully directed to page 12, paragraph 11 of the Office Action of January 26, 2007 which fails to identify which claim is being rejected. If claim 33 is being rejected as in the Office Action of August 3, 2006, Applicant's remarks regarding the rejection as they appear on pages 16 and 17 of Applicant's Amendment of November 3, 2006 are hereby repeated. Clarification is respectfully requested regarding the rejection.

In view of the above amendments and remarks, Applicant respectfully requests reconsideration and allowance of the claims now in the case.

Respectfully submitted,



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